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10/825,653	04/16/2004	Garth Shoemaker	198821-368252	8479

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McCarthy Tetrault LLP
Box 48
Suite #4700 Toronto Dominion Bank Tower
TORONTO, ON M5K 1E6
CANADA

EXAMINER	
FAN, CHARLES C	

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2628	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/825,653	SHOEMAKER, GARTH	
	Examiner	Art Unit	
	CHARLES FAN	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/26/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32,35-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32,35-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04/162004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

See previous office action.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "METHOD FOR CONTROLLING DETAIL-IN-CONTEXT PRESENTION THROUGH EYE AND POSITION TRACKING".

2. The abstract of the disclosure is objected because the concise statement of the technical disclosure of the patent in which is new in the art is unclear. Applicant is reminded of the proper content of an abstract of the disclosure. See MPEP § 608.01(b). Correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 12-16, 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Robertson et al (US Pat. No. 5,670,984).

In re claim 1, Robertson et al. discloses receiving a signal through a position tracking device coupled to the system to initiate the generation of the presentation (Fig. 2, 108), wherein

the signal indicates a location and a depth in the original image (Column 7, lines 31-42), in response to the signal, distorting the original image to produce the presentation(Fig. 6, 309), the presentation having a distorted region to provide detailed information for a region-of-interest in the original image (Fig. 5 (a), detail), wherein the distorted region is positioned at the location and at the depth in the original image indicated by the signal (Fig. 4b, 212), and, wherein the distorted region includes a magnified region having a magnification for at least at portion of the region-of-interest to provide the detailed information, at least partially surrounded by an at least partially compressed region where the magnification decreases to that of the original image to provide context for the magnified region with respect to the original image; and, displaying the presentation on the display screen (Fig. 4, 208, Fig. 8).

In re claim 2, Robertson et al. discloses the distorting further includes applying a distortion function to the original image to produce the presentation having the distorted region by displacing at least portions of the original image onto the distortion function (Column 3, lines 50-65).

In re claim 3, Robertson et al. discloses the distorting further transforming includes projecting the displaced at least portions of the original image onto a plane (Fig. 4(a), 212).

In re claim 4, Robertson et al. discloses the distortion function includes a focal region corresponding to the magnified region and having an elevation to provide the magnification upon the projecting onto the plane (Fig. 4(a), 212) and a shoulder region corresponding to the compressed region where the elevation decreases to provide the decreasing magnification upon the projecting onto the plane (Column 4, lines 1-13).

In re claim 5, Robertson et al. discloses the signal includes a direction for the projecting onto the plane (Column 7, lines 31-42).

In re claim 12, Robertson et al. discloses receiving a signal through a position tracking device coupled to the system to adjust the presentation (Fig. 6), wherein the signal indicates an adjusted location and an adjusted depth in the original image (Column 7, lines 31-42), in response to the signal, distorting the original image to produce an adjusted presentation (Fig. 6, 308, 309), the adjusted presentation having a distorted region to provide detailed information for a region-of-interest in the original image wherein the distorted region is positioned at the adjusted location and at the adjusted depth in the original image indicated by the signal and (Fig. 5 (a), detail), wherein the distorted region includes a magnified region having a magnification for at least at portion of the region-of-interest to provide the detailed information, at least partially surrounded by an at least partially compressed region where the magnification decreases to that of the original image to provide context for the magnified region with respect to the original image; and, displaying the adjusted presentation on the display screen (Fig. 4, 208, Fig. 8).

In re claim 13, Robertson et al. discloses the distorting further includes applying a distortion function to the original image to produce the presentation having the distorted region by displacing at least portions of the original image onto the distortion function (Column 3, lines 50-65).

In re claim 14, Robertson et al. discloses the distorting further transforming includes projecting the displaced at least portions of the original image onto a plane (Fig. 4(a), 212).

In re claim 15, Robertson et al. discloses the distortion function includes a focal region corresponding to the magnified region and having an elevation to provide the magnification upon

the projecting onto the plane (Fig. 4(a), 212) and a shoulder region corresponding to the compressed region where the elevation decreases to provide the decreasing magnification upon the projecting onto the plane (Column 4, lines 1-13).

In re claim 16, Robertson et al. discloses the distorting further transforming includes projecting the displaced at least portions of the original image onto a plane (Fig. 4(a), 212).

In re claim 32, Robertson et al. discloses receiving a signal through a position tracking device coupled to the system to initiate the generation of the presentation (Fig. 2, 108), wherein the signal indicates a location and a depth in the original image (Column 7, lines 31-42), in response to the signal, distorting the original image to produce the presentation(Fig. 6, 309), the presentation having a distorted region to provide detailed information for a region-of-interest in the original image (Fig. 5 (a), detail), wherein the distorted region includes a magnified region having a magnification for at least at portion of the region-of-interest to provide the detailed information, at least partially surrounded by an at least partially compressed region where the magnification decreases to that of the original image to provide context for the magnified region with respect to the original image; wherein the distorting further includes applying a distortion function to the original image to produce the presentation by displacing at least portions of the original image onto the distortion function (Fig. 4, 208, Fig. 8) and projecting the displaced at least portions of original image onto a plane; wherein the distortion function includes a focal region corresponding to the magnified region and having an elevation to provide the magnification upon the projecting onto the plane (Fig. 4(a), 212) and a shoulder region corresponding to the compressed region where the elevation decreases to provide the decreasing magnification upon the projecting onto the plane (Column 4, lines 1-13) and wherein the signal

includes a location for the distorted region within the original image and a direction for the projecting onto the plane a perspective projection for the distorted region and, displaying the presentation on the display screen (Column 7, lines 31-42).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 6, 17, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Pat. No. 5,670,984) in view of Herndon et al. (US Pat. No. 6,249,290 B1)

In re claim 6, 17, 35, It is noted that Robertson et al does not discloses distorting further includes displaying a graphical user interface ("GUI") on the display screen over the distorted region for receiving one or more signals for adjusting the distortion function with the position tracking device as required. However, Herndon et al. provides a zooming graphical user interface via mouse commands can modify magnitude of zooming (from column 5, line 50 to column 6, line 4). It would have been obvious to one of ordinary skill in the art to combine the method of

Robertson et al. with the feature of the GUI over the distorted region for adjusting the lens surface by the user with the position-tracking device as taught by Herndon et al. with the motivation of giving easy user interface.

8. Claims 7, 18, 27, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Pat. No. 5,670,984) in view of Herndon et al. (US Pat. No. 6,249,290 B1) and Microsoft Paint Version 5.1 made by Microsoft Corp. 1981 (hereinafter as Microsoft).

In re claim 7, it is noted that the teaching of Robertson does not teach wherein the Gui contains at least one of the slide bar icon for adjusting the elevation and hence the magnification, a slide bar icon for adjusting a degree of concavity for the distortion function, a bounding rectangle icon with at least one handle icon for adjusting an extent for the focal region; a bounding rectangle icon with at least one handle icon for adjusting an extent for the shoulder region; a move icon for adjusting a location for the distortion function within the original image; a pickup icon for adjusting a location for an outline of the shoulder region within the original image; and, a fold icon for adjusting a location for the focal region relative to the shoulder region to define a degree and a direction of a folding of the distortion function. However, Microsoft discloses a bounding rectangle icon with at least one handle, which can adjust size and shape of the canvas, as well as a move icon, which can be for adjusting the location of selected objects. It would be obvious to one with ordinary skill to use Robertson et al. and combine Microsoft's bounding rectangle as a means to implement the command of changing size or shape and the move icon as a means to initiate the command to move the lens.

9. Claims 8, 19 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Pat. No. 5,670,984) in view of Sakai (US Pat No. 5,828,575).

In re claims 8, 19 and 37, Robertson et al. discloses a two dimensional image (Column 5 line 65 to Column 6 line 2). It is noted that the teaching of Robertson et al. does not explicitly a three-dimensional model as required. However, Sakai provides an application (Figure 18) that can zoom (92) on three-dimensional models (from column 60, line 64 to column 61, line 16). It would be obvious to one of ordinary skill in the art to combine the method of Robertson et al. with the feature three dimensional model magnification as taught by Sakai with the motivation to magnify the 3-D model as to get a better detail of the 3-D model.

10. Claims 9, 20 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Pat. No. 5,670,984) in view of Gerhardt et al. (US Pat. No. 5,481,622).

In re claims 9, 20 and 38, it is noted that the teaching of Robertson et al. do not explicitly disclose eye-tracking device as required. However, Gerhardt et al. discloses an eye tracking means that controls a cursor on a computer screen (from column 8, line 54 to column 9, line 6). It would be obvious to one of ordinary skill in the art to combine Robertson et al. with the feature of the eye-tracking device as taught by Gerhardt et al. as both Robertson et al. and Gerhardt et al. are directed to the method for generating a detail-in-context presentation for an original image for displaying on a screen, so as to manipulate the cursor by using a eye tracking device.

11. Claims 10, 21 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Pat. No. 5,670,984) in view of Gerhardt et al. (US Pat. No. 5,481,622) and Harman (US Pat. No. 6,459,446).

In re claim 10, 21, 39, it is noted that the teaching of Robertson et al. and Gerhardt et al. do not explicitly disclose the position tracking device is an eye tracking device and wherein the depth for the distorted region within the original image is proportional to a focal depth for a user measured by the eye tracking device. However, Harman et al. discloses the use of triangulation of the eyes to determine the focal depth (Column 4, lines 30-53). It would be obvious to one of ordinary skill in the art to combine Robertson et al. with the feature of the eye-tracking device as taught by Gerhardt et al. and the detection of the depth of Harman with the motivation of increasing the image zoom as well as to manipulate the cursor by using a eye tracking device.

12. Claims 11, 22, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Pat. No. 5,670,984) in view of Sinclair II et al (U.S. Pub. No. 2004/0056899 A1).

In re claim 11, 21, 39, it is noted that the teaching of Robertson et al. does not explicitly discloses the display screen includes a remote screen coupled to the system by a network. However, Sinclair et al. discloses the screen includes a remote screen (Fig. 1, 180) coupled to the computer system by a network (Fig. 1, 170). It would have been obvious to combine the detail in context system of Robertson et al. with the ability to communicate with a remote computer of Sinclair II et al. with the motivation of allowing more people to view the images.

Response to Arguments

13. Applicant's arguments on the objections to the drawing have been fully considered but they are not persuasive.

14. On page 12, Applicant argues that the displaying a graphical user interface over the region for selecting at least one parameter for distorting at least one of the region is shown in Fig. 4 items 400 and 412 or 420 and 430 which are surrounded by 412.

15. The examiner respectfully disagrees with the applicants arguments, because the displaying step in applicant's step chart (Fig. 5) is missing as necessitated by all the claims. There is no drawing in applicant's disclosure that shows the displaying step only the receiving (502) and distorting (503) step and a showing of a display (Fig.4).

16. Applicant's arguments with respect to title and abstract and have been considered but are moot in view of the new ground(s) of objection.

17. On page 12, Applicant argues the that examiner's Suggestion of title is less descriptive than the present title as it does not include reference to eye or position tracking

18. Examiner agrees with the applicant's argument, however the title currently proposed by the applicant is still not descriptive of the invention as all the claims are to methods and none are directed toward a system.

19. On page 12, Applicant argues that the use of restatement of claim 1 is inherently concise and common practice.

20. Examiner agrees with the applicant's argument, however claim 1 has changed from applicant's own amendment and is therefore again not concise to what is the technical disclosure.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES FAN whose telephone number is (571)270-3550. The examiner can normally be reached on mon- fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571)272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CFan

XIAO WU
SUPERVISORY PATENT EXAMINER